Listing of Claims:

Claim 1. (previously presented): A process comprising:

pumping an organic based liquid working fluid to an elevated pressure,

flowing the organic based liquid working fluid through a heat exchanger in a fuel cell stack,

heating the organic based liquid working fluid to a high temperature and high-pressure gas,

expanding the high temperature and high-pressure gas through an expander to produce shaft work,

using the shaft work to drive an air compressor for compressing air and delivering compressed air to a fuel cell system component,

and removing energy from the gas to change the gas to the organic based liquid working fluid.

Claim 2. (previously presented): A process as set forth in claim 1 further comprising using the shaft work to drive a pump for pressurizing and delivering cooling fluid to a fuel cell system component.

Claim 3. (canceled)

Claim 4. (canceled)

Claim 5. (canceled)

Claim 6. (canceled)

Claim 7. (previously presented): A process of heating a fuel cell stack during relatively cold startup conditions comprising:

- a) pumping a fuel cell stack organic based liquid cooling fluid to an elevated pressure,
- b) flowing the organic based liquid cooling fluid through a heat exchanger in a fuel cell stack thereby transferring thermal energy between the fuel cell stack organic based liquid cooling if fluid and a fuel cell stack,

- c) heating the organic based liquid cooling fluid,
- d) immediately thereafter expanding the heated cooling fluid in an expander to produce shaft work,
- e) using the shaft work to drive an air compressor for compressing air and delivering compressed air to a fuel cell stack,
- f) directing the cooling fluid through a condenser wherein the condenser fans are turned off, and

repeating steps (a-f) until the temperature of the fuel cell stack has reached a predetermined temperature suitable for operating fuel cell under post startup operating conditions.

Claim 8. (original): A process as set forth in claim 7 further comprising using the shaft work to drive a pump for pressurizing and delivering cooling fluid to a fuel cell system component.

Claim 9. (canceled)

Claim 10. (previously presented): A process as set forth in claim 1 wherein the organic based liquid working fluid comprises CClF₂CClF₂.

Claim 11. (previously presented): A process as set forth in Claim 7 wherein the organic based liquid cooling fluid comprises CClF₂CClF₂.